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June 29, 2004

Clean Energy Council
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

Subject: Combined Heat and Power Program

Dear Members of the Council:

The Council, the Office of Clean Energy and the Combined Heat and Power Subcommittee are to be commended for acting on the widely recognized need to encourage the application of on-site power generation technologies in New Jersey.

Given the enormous and immediate benefits of employing dedicated generation systems at industrial and commercial facilities, the CHP Program represents an important step toward meaningful and progressive energy policy that simultaneously benefits energy users, power distributors and society as a whole.

For users, on-site power generation eliminates transmission and distribution-related energy losses; it provides a high degree of power quality, reliability and security; it dramatically increases energy utilization rates through waste heat recovery and it presents a real electricity supply option – offering a crucial opportunity to reduce operating costs for New Jersey's struggling industrial base. These systems not only relieve the overburdened electric grid but they will help promote business investment and job retention in our state.

Our company currently is constructing two 2.7 MW on-site power projects serving the entire power needs of industrial operations in central NJ. These projects rely on reciprocating engine technology, which has proven to be environmentally clean and the most operationally reliable and energy efficient of any commercially-affordable power generation technology available today.

We are actively negotiating with more than twenty major industrial facilities in New Jersey to utilize similar installations. However, even though the concept is readily sold, the challenge to find industries comfortable enough with their own long term viability in this state is significant.

While the CHP Program helps highlight the need for these systems, it also exposes some of the complications of implementing successful projects. To start, our reliance on public utilities has created an environment of complacency on the part of energy users, energy suppliers and energy regulators. As a result there are longstanding regulatory structures and entrenched interests that remain in place despite the burden they place on our march toward improved efficiencies.

For example, the cost of electric utility standby charges applied to an on-site power project that provides any less than 100% electrical self sufficiency (operating in so-called island mode, with no permanent reliance on the electric utility) can render that project economically unviable. Yet 100% self sufficiency is impossible with the gas-only fuel requirement of the CHP Program. This is because gas-only operation imposes load-following limitations on generators, which

necessitates a permanent reliance on the utility for "load support". The cost of relying on this load support is generally too expensive for project feasibility.

Furthermore, because of fuel makeup and combustion efficiency issues, gas-only operation can increase equipment costs by as much as 300% over more efficient generators using a mixture of gas and diesel fuel, further dooming the viability of gas-only projects. In spite of our preconceived notions about diesel fuel, generators burning a mixture of gas and oil will produce approximately half the carbon monoxide emissions and consume nearly 20% less energy than a generator using gas fuel only, while producing the same power output.

Despite numerous challenges over the past several years, our company is beginning to achieve marginal success implementing on-site power systems at industrial sites in New Jersey. We have succeeded in a market segment where few others have. Our projects utilize dual-fuel fired generators that meet New Jersey's strict emission standards, providing our customers all of their electricity needs from reliable, high efficiency, cost effective generation technology.

Significantly, the primary driver for our customers to choose off-the-grid electricity supply is typically extreme frustration and the significant costs related to poor electric service reliability. The CHP program must be viewed as a progressive initiative if it is to fulfill its fundamental premise. Only by recognizing the need to continually assess potentially burdensome regulations and unwarranted restrictions will this program succeed at achieving its mission.

I argue here that the most promising technologies and applications to advance the goals of this program will be rendered inapplicable unless the limitations on fuel use is lifted and an equitable solution is found to relieve self-generators of the burden of electric utility standby charges. The fact that the program is funded through the Societal Benefits charges is insufficient reason to allow only gas-only projects to be eligible for the CHP Program incentives. More cost effective and energy efficient projects providing greater grid relief will become financially viable if they are eligible for financial incentives under this program by simply being allowed to burn up to 30% diesel fuel.

And while there are costs incurred by electric utilities to maintain standby capability, they are relatively small since most of the cost for the required infrastructure is borne by the project. The broader benefit of selectively reducing or eliminating this burden on on-site generation projects would be significant; reducing the burden on the distribution grid, thereby reducing the need to spend money to improve it, is just one example.

You are taking the important first steps toward helping everyone understand, appreciate and take advantage of a significant opportunity to help New Jersey businesses and our environment with the CHP Program. I congratulate you on establishing the program and encourage you to not only continue, but to increase funding for it while remaining open to ways to improve on it.

Sincerely,

Peter T. Hollis
Regional Vice President